

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/563,655

Source: IFWP

Date Processed by STIC: 1/18/06

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 01/18/2006

PATENT APPLICATION: US/10/563,655

TIME: 15:21:28

Input Set : A:\54-000410US.ST25.txt

Output Set: N:\CRF4\01182006\J563655.raw

3 <110> APPLICANT: The Scripps Research Institute
 4 Anderson, J C
 5 Schultz, Peter G
 7 <120> TITLE OF INVENTION: COMPOSITIONS OF ORTHOGONAL LEUCYL-tRNA AND AMINOACYL-tRNA
 8 SYNTHETASE PAIRS AND USES THEREOF
 10 <130> FILE REFERENCE: 54-000410PC
 C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/563,655
 C--> 13 <141> CURRENT FILING DATE: 2006-01-05
 15 <160> NUMBER OF SEQ ID NOS: 72
 17 <170> SOFTWARE: PatentIn version 3.2
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 88
 21 <212> TYPE: DNA
 22 <213> ORGANISM: artificial
 24 <220> FEATURE:
 25 <223> OTHER INFORMATION: mutant tRNA
 27 <400> SEQUENCE: 1
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 30 gagggttcga atcccttccc tcgcacca 88
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 34 <211> LENGTH: 88
 35 <212> TYPE: DNA
 36 <213> ORGANISM: artificial
 38 <220> FEATURE:
 39 <223> OTHER INFORMATION: mutant tRNA
 41 <400> SEQUENCE: 2
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 44 gagggttcga atcccttccc tcgcacca 88
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 48 <211> LENGTH: 88
 49 <212> TYPE: DNA
 50 <213> ORGANISM: artificial
 52 <220> FEATURE:
 53 <223> OTHER INFORMATION: mutant tRNA
 55 <400> SEQUENCE: 3
 56 cccagggtag ccaagctcgg ccaacggcga cggactctaa atccgttctc gtaggagttc 60
 58 gagggttcga atcccttccc tgggacca 88
 61 <210> SEQ ID NO: 4
 62 <211> LENGTH: 89
 63 <212> TYPE: DNA
 64 <213> ORGANISM: artificial
 66 <220> FEATURE:
 67 <223> OTHER INFORMATION: mutant tRNA

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69 <400> SEQUENCE: 4
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72 cgaggggttcg aatcccttcc ctgcaccca                                         89
75 <210> SEQ ID NO: 5
76 <211> LENGTH: 89
77 <212> TYPE: DNA
78 <213> ORGANISM: artificial
80 <220> FEATURE:
81 <223> OTHER INFORMATION: mutant tRNA
83 <400> SEQUENCE: 5
84 gcgagggtag ccaagctcgg ccaacggcga cggacttcct aatccgttct cgtaggagtt      60
86 cgaggggttcg aatccctccc ctgcaccca                                         89
89 <210> SEQ ID NO: 6
90 <211> LENGTH: 89
91 <212> TYPE: DNA
92 <213> ORGANISM: artificial
94 <220> FEATURE:
95 <223> OTHER INFORMATION: mutant tRNA
97 <400> SEQUENCE: 6
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100 ccgggggttca aatccccgcc ccgcaccca                                         89
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105 <212> TYPE: DNA
106 <213> ORGANISM: artificial
108 <220> FEATURE:
109 <223> OTHER INFORMATION: mutant tRNA
111 <400> SEQUENCE: 7
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114 cggggttcaa atccccgcc ccgcaccca                                         88
117 <210> SEQ ID NO: 8
118 <211> LENGTH: 77
119 <212> TYPE: DNA
120 <213> ORGANISM: artificial
122 <220> FEATURE:
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125 <400> SEQUENCE: 8
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128 tccggcccgcg cggacca                                                         77
131 <210> SEQ ID NO: 9
132 <211> LENGTH: 90
133 <212> TYPE: DNA
134 <213> ORGANISM: Escherichia coli
136 <400> SEQUENCE: 9
137 ggagagatgc cggagcggct gaacggaccg gtctctaaaa ccggagtagg ggcaactcta    60
139 ccggggggttc aaatccccct ctctccgcca                                         90
142 <210> SEQ ID NO: 10
143 <211> LENGTH: 91
144 <212> TYPE: DNA

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147 <220> FEATURE:
148 <223> OTHER INFORMATION: mutant tRNA
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153 accgggggtt caaatcccc tctctccgcc a                                     91
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157 <211> LENGTH: 88
158 <212> TYPE: RNA
159 <213> ORGANISM: Halobacterium sp. NRC-1
161 <400> SEQUENCE: 11
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164 gagggguucga aucccuuccc ucgcacca                                     88
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170 <213> ORGANISM: artificial
172 <220> FEATURE:
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182 <211> LENGTH: 2799
183 <212> TYPE: DNA
184 <213> ORGANISM: Archaeoglobus fulgidus
186 <400> SEQUENCE: 13
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189 tttgagtccg atcctaataa gaaggagaag ttttttctca caattcccta tccttacctt      120
191 aatggaaatc ttcacgcagg tcacacgaga accttcacaa ttggcgatgc cttcgccaga      180
193 tacatgagaa tgaagggcta caacgttctc tttccctcgc gctttcatgt tacgggcacc      240
195 ccaatcattg gccttgccga gctcatagcc aagagggacg agaggacgat agaggtttac      300
197 accaaatacc atgacgttcc gctggaggac ttgcttcagc tcacaactcc agagaaaatc      360
199 gttgagtact tctcaaggga ggcgctgcag gctttgaaga gcataggcta ctccattgac      420
201 tggaggaggg ttttcaccac aaccgatgaa gagtatcaga gattcatcga gtggcagtac      480
203 tggaaagctca aggagcttgg cctgattgtg aagggcaccc accccgtcag atactgcccc      540
205 cacgaccaga atcctgttga agaccacgac cttctcgctg gggaggaggc aactattgtt      600
207 gaattttacc ttataaagtt caggcttgaa gatggagacc tcattttccc ctgtgcaact      660
209 ctccgtcccg aaaccgtggt tggcgtcacg aacatctggg taaagccgac aacctacgta      720
211 attgccgagg tggatgggga aaagtggttt gtgagcaaag aggcttacga gaagctcacc      780
213 tacacggaga aaaaagtcag gctgctggag gaggttgatg cgtcgcagtt cttcggcaag      840
215 tacgtcatag tcccgtggtt aaacagaaaa gtgccaattc tgctgcaga gtttgttgac      900
217 accgacaacg caacaggagt tgtgatgagc gttcccgcac acgctccttt tgacctggct      960
219 gccattgagg acttgaagag agacgaggaa acgctggcga agtacggaat tgacaaaagc     1020
221 gttgtagaga gcataaagcc aatagttctg attaagacgg acattgaagg tgttcctgct     1080
223 gagaagctaa taagagagct tggagtgaag agccagaagg acaaggagct gctggataag     1140
225 gcaaccaaga ccctctacaa gaaggagtac cacacgggaa tcatgctgga caacacgatg     1200
227 aactatgctg gaatgaaagt ttctgaggcg aaggagagag ttcattgagga tttggttaag     1260
229 cttggcttgg gggatgtttt ctacgagttc agcgagaagc ccgtaatctg caggtgcgga     1320

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231 acgaagtgcg ttgttaaggt tgtaggggac cagtgggttcc tgaactactc caacagagag 1380
233 tggaaggaga aggttctgaa tcaccttgaa aagatgcgaa tcatccccga ctactacaag 1440
235 gaggagtcca ggaacaagat tgagtggctc agggacaagg ctgtgtccag aaggaagggg 1500
237 cttggaacga gaattccgtg ggataaggag tggctcatcg agagcctttc agactcaaca 1560
239 atctacatgg cctactacat ccttgccaag tacatcaacg caggattgct caaggccgag 1620
241 aacatgactc ccgagttcct cgactacgtg ctgctgggca aaggtgaggt tgggaaagtt 1680
243 gcggaagctt caaaactcag cgtggagtta atccagcaga tcagggacga cttcgagtac 1740
245 tggatcccg ttgacctaaag aagcagtggc aaggacttgg ttgcaaacca cctgctcttc 1800
247 tacctcttcc accacgtcgc cattttcccg ccagataagt ggccgagggc aattgccgta 1860
249 aacggatacg tcagccttga gggcaagaag atgagcaaga gcaaagggcc cttgctaacg 1920
251 atgaagaggg cgtgacgca gtatggtgcg gatgtgacga ggctctacat cctccacgct 1980
253 gcagagtacg acagcgtgac ggactggaag agcagagagg ttgaagggct tgcaaaccac 2040
255 ctacaggaggt tctacaacct cgtgaaggag aactacctga aagaggtggg agagctaaca 2100
257 accctcgacc gctggcttgt gagcaggatg cagagggcaa taaaggaagt gagggaggct 2160
259 atggacaacc tgcagacgag gagggccgtg aatgccgcct tcttcgagct catgaacgac 2220
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263 aagctcctcg ccccttttgc tccgcacatt tgcgaggagc tgtggcactt gaagcatgac 2340
265 agctacgtca gcctcgaaaag ctaccagaaa tacgacgaaa ccaggggtga cgaggaggcg 2400
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269 gttagcgatg cgaaggaggt ttacattgct cccgccgaag actggaaggt taaggcagca 2520
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273 gagcttagga agctcggcaa agaagtgtca aatttcgtca agaagatttt caaagacaga 2640
275 aagaagctga tgctagttaa ggagtgggaa gttctgcagc agaacctgaa atttattgag 2700
277 aatgagaccg gactgaaggt tattcttgat actcagagag ttcctgagga gaagaggagg 2760
279 caggcagttc cgggcaagcc cgcgatttat gttgcttaa 2799
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283 <211> LENGTH: 2814
284 <212> TYPE: DNA
285 <213> ORGANISM: Methanobacterium thermoautotrophicum
287 <400> SEQUENCE: 14
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290 cctgatgaca gagaaaagat attcctcaca gtcgcttacc cctaccccag tgggtcgatg 120
292 cacataggac acgggaggac ctacactgtc cctgatgtct atgcacggtt caagaggatg 180
294 cagggtcaca acgtcctgtt tcccatggcc tggcatgtca caggggcccc tgtcataggg 240
296 atagcgcgga ggattcagag gaaggatccc tggaccctca aaatctacag ggaggtccac 300
298 aggttccccg aggatgagct tgaacgtttc agtgaccctg agtacatagt tgaatacttc 360
300 agcagggaat accggtctgt tatggaggat atgggctact ccatcgactg gaggcgtgaa 420
302 ttcaaaaacca cggatcccac ctacagcagg ttcatacagt ggcagataag gaagctgagg 480
304 gaccttggcc tcgtaaggaa gggcgcccat cctgttaagt actgccctga atgtgaaaac 540
306 cctgtgggtg accatgacct ccttgagggt gagggggttg ccataaacca gctcacactc 600
308 ctcaaattca aacttggaga ctcatacctg gtcgcagcca ccttcaggcc cgagacaatc 660
310 tatggggcca ccaacctctg gctgaaccct gatgaggatt atgtgagggt tgaaacaggt 720
312 ggtgaggagt ggataataag cagggctgcc gtggataatc tttcacacca gaaactggac 780
314 ctcaaggttt ccggtgacgt caaccccggg gacctgatag ggatgtgcgt ggagaatcct 840
316 gtgacgggcc aggaacaccc catactcccg gcttccttcg ttgaccctga atatgccaca 900
318 ggtgttgtgt tctctgtccc tgcacatgcc cctgcagact tcatagccct tgaggacctc 960
320 aggacagacc atgaactcct tgaaaaggtag ggtcttgagg atgtggttgc tgatattgag 1020
322 cccgtgaatg tcatagcagt ggatggctac ggtgagttcc cggcggccga gggtatagag 1080
324 aaatttggtg tcagaaaacca ggaggacccc cgccttgagg atgccaccgg ggagctatac 1140

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326 aagatcgagc atgcgagggg tgttatgagc agccacatcc ctgtctatgg tggatgaag 1200
328 gtctctgagg cccgtgaggt catcgctgat gaactgaagg accagggcct tgcagatgag 1260
330 atgtatgaat tgcgtgagcg acctgttata tgccgctgcg gtggcaggtg cgttgtgagg 1320
332 gtcattggagg accagtgggt catgaagtac tctgatgacg cctggaagga cctcgccac 1380
334 aggtgcctcg atggcatgaa gataataccc gaggaggtcc gggccaactt tgaatactac 1440
336 atcgactggc tcaatgactg ggcattgtca aggaggatag gccttggaac aaggctgccc 1500
338 tgggatgaga ggtggatcat cgaacccctc acagactcaa caatctacat ggcattattac 1560
340 accatcgac accgcctcag ggagatggat gccggggaga tggacgatga gttctttgat 1620
342 gccattattcc tagatgattc aggaaccttt gaggatctca gggaggaatt ccggtactgg 1680
344 taccctcttg actggaggct ctctgcaaag gacctcatag gcaatcacct gacattccat 1740
346 atattccacc actcagccat attocctgag tcagggtggc cccggggggc tgtggtcttt 1800
348 ggtatggggc ttcttgaggg caacaagatg tcatcctcca agggcaacgt catactcctg 1860
350 agggatgcca tcgagaagca cgggtgcagac gtggtgcggc tcttctcat gtcctcagca 1920
352 gagccatggc aggaactttga ctggaggag agtgaggtca tcgggacccg caggaggatt 1980
354 gaatggttca gggaattcgg agagagggtc tcaggatcc tggatggtag gccagtcctc 2040
356 agtgaggtta ctccagctga acctgaaagc ttcatgtgaa ggtggatgat ggtcagctg 2100
358 aaccagagga tacgtgaagc cacaagggcc cttgaatcat tccagacaag aaaggcagtt 2160
360 caggaggcac tctatctcct taaaaaggat gttgaccact accttaagcg tgttgagggt 2220
362 agagttgatg atgaggttaa atctgtcctt gcaaagcttc tgcacgcctg gataaggctc 2280
364 atggctccat tcatacccta cactgctgag gagatgtggg agaggtatgg tggtaggggt 2340
366 tttgtagcag aagctccatg gcctgacttc tcagatgatg cagagagcag ggatgtgcag 2400
368 gttgcagagg agatggtcca gaataccgtt agagacattc aggaatcat gaagatcctt 2460
370 ggatccaccc cggagagggt ccacatatac acctcaccaa aatggaaatg ggatgtgcta 2520
372 agggtcgcag cagaggtagg aaaactagat atgggctcca taatgggaag ggtttcagct 2580
374 gagggcatcc atgataacat gaaggaggtt gctgaatttg taaggaggat catcagggac 2640
376 cttggtaaat cagagggttac ggtgatagac gagtacagcg tactcatgga tgcattgat 2700
378 tacattgaat cagagggttg agccagggtt gtgatacaca gcaaaccaga ctatgaccct 2760
380 gaaaacaagg ctgtgaatgc cgttccctg aagccagcca tatacctga atga 2814

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383 <210> SEQ ID NO: 15

384 <211> LENGTH: 932

385 <212> TYPE: PRT

386 <213> ORGANISM: Archaeoglobus fulgidus

388 <400> SEQUENCE: 15

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391 1 5 10 15
394 Lys Asp Arg Ile Phe Glu Ser Asp Pro Asn Glu Lys Glu Lys Phe Phe
395 20 25 30
398 Leu Thr Ile Pro Tyr Pro Tyr Leu Asn Gly Asn Leu His Ala Gly His
399 35 40 45
402 Thr Arg Thr Phe Thr Ile Gly Asp Ala Phe Ala Arg Tyr Met Arg Met
403 50 55 60
406 Lys Gly Tyr Asn Val Leu Phe Pro Leu Gly Phe His Val Thr Gly Thr
407 65 70 75 80
410 Pro Ile Ile Gly Leu Ala Glu Leu Ile Ala Lys Arg Asp Glu Arg Thr
411 85 90 95
414 Ile Glu Val Tyr Thr Lys Tyr His Asp Val Pro Leu Glu Asp Leu Leu
415 100 105 110
418 Gln Leu Thr Thr Pro Glu Lys Ile Val Glu Tyr Phe Ser Arg Glu Ala
419 115 120 125

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:17; N Pos. 3750,3770
Seq#:18; N Pos. 3749,3769
Seq#:19; N Pos. 3749,3769
Seq#:20; N Pos. 3274,3294
Seq#:72; N Pos. 31,45,77

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,10,12,17,18,19,20,21,23,24,25,26,27,28,29,30,31,32,33,34
Seq#:35,36,72

VERIFICATION SUMMARY

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L:12 M:270 C: Current Application Number differs, Replaced Current Application Number
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:1013 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:3720
L:1196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:3720
L:1379 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:3720
L:1546 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:3240
L:2260 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:0
M:341 Repeated in SeqNo=72